SEQUENCE LISTING

<110>   greenovation Biotech GmbH

<120>   Bryophyte expression promoting regions

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aatgcataca tagtcctgtt gactatggct gagtggataa gatatatttc catcacaggt      360

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ctaatccgtt gcaggacgat cagccgtgaa acagatacct atattttaag aatgtttatt     1080

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<210> 11

<211> 3035

<212> DNA

<213> Physcomitrella patens

<400> 11

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ctgtacaatg tttcacaact gtagcctagt tgatcgtgca tatttgcgtc atgactcccg      240

gcaagttgat gtgtttttttt cttgcttttg aatcccttca acctgtattt ggtggctcgg      300

acagtaactg ctacgatata cgtcagtctt tagtaagtaa tatgttcctt tttctctcgc      360

ctcacgtatg tcatatttcc tgagatagtt ttttaatttt cgctctgtgg tttcttgtag      420
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10

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tcctttcact gcgtgccgct atcacagctt ggtcatagag gaggccacat ttccagcgga    480

ccaacttgag gttacagcat ggactgagga cgggcttgtg atgggagtcc gtcacaaagt    540

ctacaagcac attcaaggag tgcaatttca tcctgagagc atccgaactc aaaacgggat    600

gcagatcgtc ggaaactttc ttaagatttt agatagaaag gagacggctg acaagaagga    660

gttgaaacac aaattttgga gagtgtttga gtgatgagtg atactgggat ccttttttat    720

gggaaagatt gccagcagca gtaagcttgc ttttgttaga ttcctctccc tacagcgtgt    780

acctcctcga atatgcactc aagcaagcct agaggttgct gctatagatt tctcggtaag    840

acagggtatt attgaggcat tttttgcgct tccagatgga gctactacca caagtatcta    900

tcctattatt atctttaact tcgatggatt tgccatgatc actgaggtac gtcgaagttg    960

tgattggact tgtagtgatc acttccagag cgagctatca aactggtgcc tagaggagca   1020

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gaatagtacc ttaacttctt acacaatggt gtctaatttg ttattcttgt gtatcacgag   1500

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atgcatgagt cccttcgttt gggagatttt agaattctta ggaactcaca cgttgtccat   1860

aaattttaac caccgggcaa cataggatgt tgacatgtag tcacaaattt agaaaaaccg   1920

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gaaattggaa cattcacaac aaagcgagaa gaggttcaaa aaaaccgcag agtaaaccct   2040

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aactcagaaa gggagccact ggtacaaatg ccagctttgc aacgcagaac gaacgcggga   2220

gagctaacag atccgggctc aaaatctcct tcttctacct ctcaagccgt ccacaaccct   2280

cattctccat tctcgcacta ttctcctcaa accagttgca tctgcggttc cctccatctc   2340
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11

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ctcacttaat ccgaaagcta atgggctgta ttgagtgagg ctaatacaca tctctccata   2880

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<210> 12

<211> 1221

<212> DNA

<213> Physcomitrella patens

<400> 12
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aagggaatgg ttactcgagt aaagagccag cgctgtcgag accttcttgg tgcaattcca   180

tctttgaaag tatgcatcac aagttagatt cgtggctttt gagcttgtcc tcattatttt   240

gcctaccatt tatgttttttg tggatttagc atccgcggcg tttaagtttt tgtttttaaca  300

ttctttcttg taggttcgga tagaatgttg gggacatttt atgcttgaag agcgtcttgc   360

actgtcggac tgtaatgcaa tgcttgtgga cctcagcctg cctgcaata cttgtatatt    420

cgtgaaaaca atcatagcga ctctgtgtta ttcttcccat gtcattcact ggctctcgaa   480

ctttgtcgaa tacatctgat gggcacgcgt gcagaagccg ttctttaacc tcgatgggat   540

ggattagtac gatttgctgt catttaaaac tatttgctat ccgtatttgt cttctgttcg   600

gaaatttgtg tagcttgtta ttttatggta tgttgtagga aatcagcttt ggtgagaaat   660

ttgtttcata acgacacaat ggaatgatga attaaattgt tgccagacca atatcgtatg   720

tgtcaatctg attcctcaat gcagatatgg ttgtggagcg tctgctgtac ctccttgttt   780
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taaccgccgt atctgaacca actcgaacgt agtttgaaaa atgcactaaa tgatgcatat      840

tcaatcggtc aagtcatatt aaacacgcgg ttttgaaagg tagcaggtgt atataatata      900

aacatgtata tcgcaaaggc ccattcctga cattggatgg tgctaattaa gatctaatga      960

accgttcctg gcaatgtatc tatcaagcaa actgaagaca caatgaatcg ttgagtgtat     1020

gtagaaacac aaaacgatct tgtatttcct tttcatgtgc cagagtgagc ctcatcgatg     1080

tacactgata ggactcaact ttgatatttt ttgaagattc ttatgcctga ataaggtact     1140

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<210> 13

<211> 3060

<212> DNA

<213> Physcomitrella patens

<220>

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<222> (1)..(2301)

<223> a, t, g or c

<400> 13
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tgtatattta aatcaaaata tttttattca aaacaaaat acaataaaa accaaaaaat        180

attttaaaaa taaataaaaa attattaata cttttatgaa gctattattc aaatttattt      240

ttaatttcta atttaagatt tattattttt tcttaaattt attaaacttt ggaatttatt      300

tttaaaataa ataacaataa aataatttat agtgttttta ttgataagta aaattaagag      360

ctaaatttgg atcattatta caaagttata atacttaaat atttattgag atatatttaa      420

atttaattaa tattttttat taagttatat atatatatat atacacatat tatgaaatta      480

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tttgcttaat taaaaaaaat tacatcttgt tacatttaaa tttaaaaaat acatactata      720

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cccaattgtt tattccaaag taatagtagc ncattaataa aaatccttca aaaatgaaac    960

taaacaaacc aatgcatctc aaatgaaaag gagaagaatg atcttacata gacanccaca   1020

aggagggaca tgacaactta attagactat gggtttagga acatcaacca ttccctacta   1080

ccaaaaaagc ttacatgatt ttaaataaca caatattcct tgtgactttt gtgcattatt   1140

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ccagtgttgg tctgaagacg acaagcctct ttctttcttg aatagtaaga agaggaattt   2640
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<210>   14

<211>   4124

<212>   DNA

<213>   Physcomitrella patens

<400>   14
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attcaacaga ggtttatttc gcagatgact atggtttgta aaaatagcag atatctgggc    180

tcaattctaa cggctggtat atgtcagtac ctataaactt aactgtttgt agctctagat    240

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16

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<211>   3053

<212>   DNA

<213>   Physcomitrella patens
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tatcgacaaa tagattcaaa ataaattaaa attaaaattg aaaatgtata aacattggca    180

tgaaaatgat attaatttaa aacaattcaa aacttataca attatttaaa atacattagt    240

caccgggtta aaggagacag actgacagaa ttggattgcg gcaatcagta gcactgcaca    300

aataaattta acatgaaaac attatgattg ctaatactct gtttgcatgc acttctacaa    360

caacaaaaac aaaaaataca atcaaacaaa acaagcaaac aataaatgat tttagatttt    420
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gaagaattcc gctatcaaat ccaggttggt tgaaaaccaa tgaaaaaatg gttggcttct    780

caaccaatga taatggatgg gttaatttaa taaattcatg ggtcaattta aaaattccat    840

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tcatacatgg acaaaaatac aaagagattt tttaaccaat attttggaaa cacatttagc    960

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atatatgctg cagtcagtta gggttgaatc cctgagggag ggggggctccc gtgtgaacaa   1080

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tctacgtggc tggattttc cgtcaaccgt aggctgaagt gccttaaggg gttacatgtg      2460

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tcagttcgtt gtagagtccg ggatatatgt taggtagaat aaagaatctt atctctcggc    2580

attcgaataa aaatttcatc cttttgaat gcaccttgtt tgaaaggtcg ccccatgccc      2640

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taatttgacc ttattagaag atgttcgtac ttagagtacc ttttacttaa tgtaactgaa    2940

tctatcattg ctttcgttct taatcgtgct acaaaattta actcattctc tcgttaacta    3000

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<210> 16

<211> 1879

<212> DNA

<213> Physcomitrella patens

<400> 16
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taagaagtgg tacatgttgc cgaaactatg gatttgtaaa aatgaaacgt atctgggcgc    180

ataacgaact gcttatatat gtcgctgtct gttaacttca atctctacat gtccagatcg    240

atgcggtaga acccgaccat ttttgatcg atgtttgaac cttttatgt taaataaaag      300

gtaccatgtt ttcagcgcat taatcatatt tattttggtc actatggact tgatgtacac    360

cggatgttac agctcagttc tacttcacag ttattcactg acttgccctg aaaaagtcgg    420

agtgcagatc tcgttgtgtt ttggtaatct ggttggccag tctcagagct ctattttttg    480

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aaggttgcta cgccaggaat gctgtgaggc acattctacc cgtatgaatt cctcgttcg      600

caatagctgc aagctcaatt taggtttttc tgagcaagtt gtagaactat cgtgtactct    660

caccagattt cagcctctca gtgctgagtg ctttcgtcac gttaactaat tgtggaagat    720

ttggaatcat ggttgcatcc cttagtttga cagaattcac agtcgttagt tgacctctct    780
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aataaatccc aaacaagact aaggccatct aacgttttca catgttttaa aaaattacat   1140

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gagtgtcatg tatcgaacat ttgactcaca attataaggt tttatatttt aaatgagtct   1320

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gtaaataaca atatattgat gaggatatat atatataatc aaaattaacc attagtgatt   1740

tttaacctgc atagtattaa tgtatgggac cgcaaggtag acacctacct ctactggata   1800

gcacctctca tatacacaat aaaactttta ccttgctaaa agtccaaggg aatttacaaa   1860

agaaattctt ttaaaaact                                               1879
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<210> 17

<211> 1823

<212> DNA

<213> Funaria hygrometrica

<400> 17
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tgggtacagc attcataaaa ctacagataa ttatccttca aataagtaag aaaaaagaag    120

gaaggaattg ataaataagc aagaaattaa gcaaagcagc cactcggcta gacaaaagag    180

actgcacacg ggtggccaag gaaagcgccg tcataggggg atatgcggtc atggggtcac    240

tgtttccggc agccggaatc gattgcaccc tcgcagtggc tgacgagtca gaaccgggtg    300

ccaagtggac ccagctcagt cgcgggcagg ccgaggtggc accgaagcct ggtcaacgtg    360
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gaatggatac gaatgtactg gatacgagat acgaatacga tacagtagag aaagaacgcg    420

gcgagggtgg cacgaattcg cagacacaac cgagtcggcc tgacaaggcg ccccgcctgt    480

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ctgcgcgggt cccacccct ctcactggac tcgagatgcc gccctgcgct gcctgactcc     600

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tcctgtttcg gtgaattaaa ttatttcgat atttagaatt taatttaata ttattttttac  1620

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agtctatatt tctgaagact tccacacaat atagtagacg ttctgtgcta tcctgactgc    1740

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gttgggcagg tccgtattaa gaa                                           1823
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\<210\> 18

\<211\> 419

\<212\> DNA

\<213\> Funaria hygrometrica

\<400\> 18

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21

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cgattacaaa cttgtgtggg taccgaacta ggccggctag cgtagatcga gtagaggtcc   120

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<210>   19
<211>   1333
<212>   DNA
<213>   Funaria hygrometrica


<400>   19
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cattcgctac catcccaagc tgaagtgctg aagttgattt catatgttca gtttgctgtg   780

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aagtcgagta caaatcaata ggtacaggac tcctatattt tggtgttccg ccatagttat   900

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<210> 20

<211> 3289

<212> DNA

<213> Funaria hygrometrica

<400> 20
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atatgtacta ttaactttcg ctatctgttt tcttgtagtc ctttcaccgc gtgccgctat    660

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tcagcttgct tttgttagag tcctgacccc cagcgtataa ctccttgagt atatgcccaa   1020

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tttcagagcg agctatcaaa ctggtgcttg gaggagcaac gcaaggaatg ctgaattttt   1260

ctaatgatct aattcagctt aagtttttcg tcaaacttag tgatattttg aagttcatct   1320
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cttccacgat aaaaatggta gttatgttgc tggttggaac tttcaagata ccataacatt   1560

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tgaaaggaca aacgccgatc attgcgcaac tctaattgtg acggtcttca agacaactaa   1860

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aaagttatca ccgacaccct atgggtttaa ccatgttatc tgaaagcttt ctctacgtat   2040

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attgcacaga gtgctattaa ggcggcttca tgaagctccc agttttgtga atcatgttaa   3060

cttgtccact gatcagaacg ttcgggctgg catacgtgaa gcgaatacac atttttctac   3120

agcatgttcc ttattttagt cttcatactc actgcttcga ttgccggagg gcctccatgt   3180
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tcgaccacat cttcacacgg ggcttatcat ctgacctaaa tcgcacgtgg cctctgtatt      3240

gtgtcaatgc cagtaacagt cttttttgatg cgcagaacat ttcatctcc                  3289
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<210> 21

<211> 937

<212> DNA

<213> Marchantia polymorpha

<400> 21
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cttcgtttgg acacatacat ctggatcttg agaggaacac gtgaattaga gttacatgcg       180

gtattgcgtc atctttgcga ggtaacggcc gcgccgcaga cctagcggtt gcttctcgc        240

gactcaagga atcttccctc tcctgctcca tcactggaat gagagttgca gtctgatctt       300

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taaacattag gctcttcagt tgtctcgctc agaccattat tatgagttat tgttaccgta       660

gtgtgttgct atgtcagccc gtgtagtctc gtcaatttct ggagggtaat gcgaacttgt       720

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gttgacatat acattgtgat gctcatgtct tttgtcgagt caccaagatc cgcaaccatc       900

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<210> 22

<211> 3025

<212> DNA

<213> Marchantia polymorpha

<400> 22
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atggtcatat acttgggata tttttaaatt gtgaatacaa gattataaca aagttatcat   420

tgcaaaatac taaagataag ttatctttgg tgagaagaca tgatatacca tctgcatatt   480

acttattcac caattgacca aagatttaca atctaccttg atgaaccata aatttgagaa   540

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gctttcacaa aaatgcaata atgtgaaagt tgatgcaata atccctttag gttttttgac   660

tcataacaat tttctctcca aagcattgag attcaatgtg gacgtgatac ataaattcac   720

atcttgatta gttacatata aatgtggaac tgccgtattt gtcggaaagt tcatacaatt   780

ttttttgttc atttgaagat cataagatag ctgcatatat caccattagt gatgatatga   840

tatatgacat gagaaaaata taacttaata tgaaggaagt cttgatatgc cttgctatcc   900

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agaatggatt ccttggaagt gttgtatttt tgacctctca taattaagca cagattaatc  1020

ccttcatttg tggtctatca atcaagtggt ctacgaatga ctctaatttt aagattattt  1080

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aaatttgtaa agagttaagc tctttctttg ttcatgtagc tttgaggctt tgtaaaaata  1260

tggacattga ttcggatata gaggtgagtt gtgcacaaga gatgaccata cttggtgtca  1320

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gaatggctca ccagttactg gactgccaca attcgcagca ttggagactt ggccaactca  1740

accagagaag ggaccacgtc gaacgatcta cctccctccc agtgagtgag tgagtcttcg  1800

ggtgcagtat tgtccaagtc ctggaatgtc gatccagccg caggaccagg aagatcgggc  1860

cgggtacagt aaagttgcca taacaatccg gcaacgaacc acagatccgg gacgatctag  1920

cgggaagttg aagtccaagg ctcggggcac atctccctgg tagaattaga atccatagcc  1980
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26

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agaattctat ctcgaaacct tgtttcgcca gcgttatgat tataatcaag cgtccccgtt    2040

aatctgattc ctgtgaaagt tagttagtaa cttcataccc cagcattatg attataatca    2100

agtgtctcag ttagtctgat tcctgtgaat gttagttagt aagttcaggc cttctcgtaa    2160

tagcttcttg cgtataatct gaactgttga taatggttaa actcttgaat tacgacatat    2220

cagtcccggg agattaatct gcttccgcta agctcgagga tgcacagcag taattttggg    2280

tcgtttggga tttgataaaa cggacgggaa tatgcgtcgc gagttccgag taggagtgag    2340

gaggaatgca aaccagcgga ccacgtaaag aggcccacga cagtccagca gcccagctgt    2400

gagacacaag ggggacgaaa gggaccgccc aggccgacca cctgatgtca gggggagctg    2460

gtgcgagcgg cgacggacat ggatcggcgt ttggttgcgg tccagaagcg ggcgaggagg    2520

gatccgcatg agtgacacag tggggggcaga attgggagaa gatcgtgggg gtaattgaga    2580

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agcgatattc gagcaataaa ataagagcgg gggacattcg aaaagaggcc ccatataaag    2760

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tgaccatcac cgccttcagg acgctcacgc ccaacgcaag aatttcgagt cgaagtaagc    2940

gagcagctca atcgcttcgt taacgcgttt gcggagatct tcgaggtttc gcgttcgaag    3000

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<211>    909

<212>    DNA

<213>    Marchantia polymorpha


<400>    23
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tcgcctcgcg ctctttcttc ttcctagttc gtccgttcct cgtaccggga tagggcggtc    180

gcgggtctcg tgagggtttt ttcgagcaag gtgcgtgagc aagttcatat cggtgggcaa    240

tgcatggggc gaacctggtc gggccctttt ccgaggccgc cggagagcct agtctccaag    300

ctgtagtatc ggtgttctcg aagatcggtc ggtgtctgca tctctccatc tcgattcgtt    360

tcgtctgagc tgatccgccg gtcgattttg acgatgtcgt gtcctcacct acgcaagttt    420

ggttccgagg attagttttg aagatgctgt caatgggaag tttagctctt ggttcgtgat    480
```

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accatgacct aatggatcgt ccagcttatt cttctggaag tatagacgtg tgatggctgt    660

ggcctgtggt agggttggac acgcccgcag tggtctctcc gaatttgaat gtcgcaatgg    720

tcgatgtgct ctgccgattt ggggaatcga agtggcaaac cggtcgttcg gactgtcgag    780

tgtatgcctg ctgcttgtgc gatgtagtgt ggatttttcc tccgatgttt tccaaacgtg    840

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atcgtcgat                                                            909
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<210>  24
<211>  2146
<212>  DNA
<213>  Physcomitrella patens
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tcattctttc ttctctaccc tatagtgatg ggaaattatc ccaaactcaa tgtcatactc    180

caggcaattc agaaatatag tgagatgaat accaggaata tttattcaca tcgaccccta    240

tcgccgggca atgccactcc caccgcggaa tgagaaactc cttgaaaaaa caagtccctt    300

cccagctgcc cgaaatcggc cgcctggtca gcacggcacg acactgccca cgtgcaatcc    360

tgacgtggcc tctacgtccg gaaggcggcg ccgttagcga tgtcctccta tgcaagttcc    420

tcttgtggcg gggcagtgtg cccgccaact tcaccgtcac cctccacccc aacaagtggc    480

ccaaattact caggggcagc ccagcttcga aattttaagc ggtgaccgcc ccttctcatc    540

gtcacgcgtt acttcttttt cactcaatcg agtctgttta ttattggccg ctaggaaatt    600

gcagcttcca actccgcatc accgcgtgca gtacagtgga gatcttcaag agtgtcctca    660

ccaggaattt gcaacttgct ccttgcaatt tgtaataaat ggacagagaa gcctagattc    720

cgcatccaca gtgatgggtc acgtatcaat aagcgaagct gcgttggcaa ctatggcaat    780

tggtttggtg tcttcgttcc tgtcaagttt gaaaagaaga gggagatctg atttcttaat    840

aagtgtcgac ttgtctgggt agtggattgc gtggggcgtg tcgtagtgcg acgcgatcgc    900

atcaaattca tcgcctcaaa atttgtcacg ttgttgggtc aattgcaacg aactgcgatt    960

gaaggattct ctcggtggc cttcaaattt gctttagtat gacagaagtt ttgcagctgt   1020
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28

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actcggcgtt tggaaggagt ggaagtgagg tggatcacca cgcaccggag ttggtgaatt  1080

gtttactgca gaaaaaaatg gctttgatca catcagaatg attgatgttt cagcttgaat  1140

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ttttgaaaga atattttaag acgcttgtgt tttacaacct ttcggaagat gcgtccttga  1260

ttgaaagtgg ttaatgtttt gtacatcatt actggatatg aaaataccaa taaaatgaaa  1320

tacaataaaa tattttttg aaatgaaaat tggtttaaat aagcatgtaa ataatagacg  1380

gtggagtaaa gaaaaggtaa taaaaaaaaa agtatgaatt ctattactct tcaatataaa  1440

agtaagaggt gtccgtttgc aagcaataaa aattcagtaa ttgctagata aattcaaaag  1500

ccaaccaata cacaccattg ttttgctgca aagctagggt ttctaaggcc acaattcaat  1560

gactagtgac ttacatatta cttccaaacc gaagcaaagc aagggtactc cacgattgta  1620

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cttcattatg ataattaagt gacgttttaa tctcattaaa tttaatgcca ccgtaggtta  1740

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tactgcccga gtccgataaa gacggaaaca atgcgataaa agtaaaagtg agcagaagaa  1860

agtgcacggt cgaaggcggc gtttgtttac atttacttca ccaaaaccga gcaggatatc  1920

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cttgctataa gaacactgct cctccgatct aaacctcgga ttgtgcgctt ctagatactg  2040

aatttgtttc gaccctgcct tgttgagtgg ccgtagaggc tcgacagtta ggatcagtgt  2100

gccgttgaat ttagtgattg tgtagcgacc agtacgtcct gtaagg              2146
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<210> 25

<211> 524

<212> DNA

<213> Funaria hygrometrica

<400> 25
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ctcgcggata agggtgacag caaggcgcgg tattactgga taagagaagc ggccaaggcg  180

gcagccactg tggtccactt tgctgcgtca ctacctactg cgattgtaat gacgagcggc  240

agcgtcgtgt gacaggcttg aaccgaccgc tgcttcagcc gcaggcagac tagaaaagtt  300

tactcgctgt cccactcgtt ttctgggtgt gcatccgaag tttctggatg gttgcccgtc  360

gttcaataaa ttgtcgcgcg tcgagctagc ggacactttt gtcaccgttc ttctctgttt  420
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29

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attctggacc agaggtgctg ttagctttgt tgtgtgtgag tccttggggα aatccctgcg      480

cgtcacgaga gtttattgca gggaagtgat aaagcgttgt gaag                       524
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<210> 26

<211> 2088

<212> DNA

<213> Physcomitrella patens

<400> 26
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acaattattc taataaataa tgataaaaat tagacatctt gcaataaaat ttctttttaa      180

aaatagatac ataacatgaa aaatatccca taaatagcta acaccatcaa aacatttgac      240

caaatatgca cttttagatg tgtcaagaca aaaagaaata tttgcaagat tttggagtat      300

ctaaactaat gtttgtcctc tttgcactat gagtaggatt tcttttattt tgtttagtga      360

aaagatacat tgcaatttgt tttcataata aaaactatac taatgaaata gtgctaaaaa      420

ataacaagat taaaaaaaca taacccttct tacaacctta aatccttcta attagactac      480

ctcaaagttg tgccatttag cacaaaaacc attcttttaa atctacttaa ccctccaatt      540

tccaatgagc ttcatgtgca tacacaagca tgctttcttt ctttctttct tgaagaaaac      600

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taaaactagc aatacaaccg ctgatggaaa caaccgaaag ctatgtcatt ggagagggcg     1020

cacgagttca tggaatacac agtgagaaga gataagaaa taaaataata taaaatacaa     1080

gtgtgcatca gcaagacatg gccgaaatct aacaactgtc tgcacatgct gtggtgggtt     1140

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aaagctcttc tgttctagct aatctctagt accaagctca gacgtgtagc cgacgaagcc     1260

aatagcagct gggtatgcta gtcactgatt ctgaagcggc cggtgtgtcg attgcgatgt     1320

atctcagttc ggcgaaggcc tgtgtctgga acatgggaag agggtcttct tgcactcgtc     1380
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aatctctcac agcaactggg cagggttgta tccgaacgtg gaaaacgcag caaccgttgt    1440

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gaagtctggg ttttctccaa cttccgcatg cacacacttt tctcgacgac atccgtttca    1680

aggtacgcat cgggaaactg acgattctct gcactggtgt tcagactctc cggagaggcg    1740

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ggattatcct ctggacggct ccgcttctgg tcgaaaaaat ttcatcccaa aaaaggactt    1860

atctgttgac tgaaaatgtt taattgtggt gaggattgca tgcagcgacg tcgtaaagat    1920

agggtgacaa ggagcgttcc agagctcagc tcggggcatg ccccggcact ccctagcata    1980

taaacatacc gggtggaatt tgtacccacc aggtcttgct cggtgtcccc tgtgcccaag    2040

ctgttggctg cattgccctt gcgattcgag tgtggagaga ttttagca                2088
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<210> 27

<211> 500

<212> DNA

<213> Physcomitrella patens

<400> 27
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cactgacagt cagtcgctca cacggcaaag tagcctggat gtgcttcgca acgaactctt     120

gaatttgagt atgtgagttc actttgaaca tcccagaagc aaaagaatgg ttttttttcat   180

gtttgaattt tattttgtat agttgtgttg agccgcgatt tctatctgtc acttggcttg     240

atattctgag tttctccgat acgaatagcg aagtccactt gaacatctgt aacggcagca     300

attgcgtcag gtcaatcctc tcagattctt tcggtgcttt tgtcgtaaac tagcttgatt     360

gttgtccatt aagcttggtt gcttttcgtg agaaagcatg aaacttctat gacgaaaccc     420

ggttgattgt aatgtaacta gtttgattgt agtttgaatt tggtaattgc gttgtatgat     480

acataatgaa agtttcatga                                                 500
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